4 Stage 0 Standard Operating Procedure

4.1 Purpose

The purpose of Stage 0 (Feasibility) is to reach a decision regarding the project's feasibility and whether the project should continue further through the project development process. A base of information must be developed so that rational decisions can be made regarding the allocation of available funds among competing projects. For those projects that are selected for addition to the Highway Program, Stage 0 must also develop the information necessary to proceed with Stage 1 (Planning and Environmental Process). While Stage 0 activities will be conducted in various sections throughout DOTD depending on the nature of the project, the Office of Planning and Programming is ultimately responsible for Stage 0 implementation.

4.2 Process

DOTD uses two methods to identify candidate highway projects. The first is a technical method that gathers and analyzes data regarding the physical condition, operational characteristics, safety performance, and congestion on state highways. The second method seeks input from DOTD customers—the general public, state and local elected officials, metropolitan planning organizations (MPOs), etc. Even though the majority of public involvement will occur during the Stage 1 process; it will be necessary, on occasion, to involve the public during the Stage 0 process. In some cases, funds are earmarked for specific projects by Congress or the Louisiana legislature. In other cases, DOTD administers federal highway funds for local governments and other special programs.

Due to the number of candidate projects, the Stage 0 process has been streamlined. The complexity of the project will determine the extent of documentation required. For example, those projects requiring right-of-way or having obvious major environmental impacts will require more information than comparatively simple routine projects. For some types of projects, an initial screening may be necessary before proceeding with Stage 0 in order to reduce the number of candidate projects to a manageable level for the resources available. It is also important to employ "context sensitive solutions" during all stages of the project delivery process. The overall flow of project requests through Stage 0 and their ultimate disposition is illustrated in figure 4-1 (see page 4-7). For details of specific project types, see the Stage 0 Manual.

4.2.1 Project Types

Typical Projects: Typical projects must be separated by the magnitude of their costs. Those

classified as “mega” projects will require dedicated funding since they cannot reasonably be entirely funded under the annual Highway Priority Program. At the conclusion of the Stage 0 study for each “mega” project, the Project Delivery Steering Committee will decide whether to proceed with Stage 1 or place the project on hold until more information is available about potential funding sources.

Regular projects are those that can reasonably be funded under the annual Highway Priority Program, subject to competition with other projects within the same category. Each year, all candidate projects for which Stage 0 studies have been completed will be submitted to the appropriate project selection teams. The teams will then decide which projects proceed to Stage 1 within the respective budget constraints for each project category. Projects not selected can be shelved or retained for reconsideration the following year. For further information on the project selection teams and the project selection procedures, refer to the “DOTD Highway Project Selection Process” Manual.

In instances when resource constraints necessitate an initial screening of typical projects, the Project Delivery Steering Committee will decide which “mega” projects proceed through Stage 0. For regular projects, the DOTD districts and MPOs will often provide the initial screening; however, in some cases, the appropriate project selection team will perform this task.

To provide adequate time for legislative approval of the Highway Program and for project development, the project selection process must occur several years in advance of construction. The project selection teams are therefore making decisions as to which projects will be let to construction in a given future year. This future year for construction letting in effect establishes a preliminary project delivery schedule. Working backwards from the proposed construction letting year, a preliminary project delivery date (PDD) can be established as well as preliminary completion dates for Stages 1 and 2. This date will be established in coordination with the Environmental Section.

Federal/ State Earmark Projects: The U.S. Congress sometimes designates funding for specific transportation projects in various legislative acts in a practice referred to as “earmarking.” The projects are often called “high priority” or “demonstration” projects. Similarly, the Louisiana Legislature earmarks funding for specific projects through the State Capital Outlay Bond Program. Stage 0 studies will be undertaken for each of these Federal and State earmarked projects. If sufficient earmarked funds remain following the completion of the Stage 0 study, the project will proceed to Stage 1. If the remaining funding is not sufficient to complete Stage 1, the Stage 0 study will be forwarded to the appropriate project selection team for consideration subject to competition with other projects within the same category (i.e., preservation, operations, safety, additional capacity).

Special Category Projects: The DOTD administers federal highway funds for local governments and manages other special programs.

- For Urban Systems and CMAQ funded projects, the decisions regarding which projects will proceed to Stage 1 will be made within the MPO planning process. Normally, the MPO staff will complete the Stage 0 studies and submit them to DOTD for review. Similarly, local governments make the decisions for off-system bridge projects. Completed Stage 0 studies are then submitted to the DOTD for review.

- For highway/railroad at-grade crossing improvement projects and contract maintenance projects, preparation of the Stage 0 studies and selection of projects to proceed to Stage 1 occurs almost simultaneously. This is a result of the repetitive nature of these projects and the extremely low frequency of adverse impacts to the natural or human environments.

- Enhancement projects are a unique case. A wide range of entities submit applications. The completed applications serve as the Stage 0 studies. The DOTD districts review these applications and prioritize them within each respective district. They also coordinate with the MPO for those proposed projects located within the metropolitan planning area in each district.

Regardless of the type of project, once the decision is made to proceed to Stage 1, the appropriate program manager is notified and provided with a copy of the Stage 0 study. It is the program manager's responsibility to gain approval of Stage 1 funding, obtain a project number, and make the necessary contacts to initiate Stage 1. The program manager is responsible for sending a memorandum to the Environmental Section indicating that the project was selected and approved for further processing through Stage 1.

4.2.2 Process Steps for All Project Types

The steps for completing a Stage 0 study are outlined in figure 4-2 (see page 4-8). The first step in the process is defining and articulating the purpose and need for the project.

The results of the subsequent steps determine the "practical feasibility" of the projects and provide much of the information needed to make rational decisions regarding the allocation of available funds among competing projects. "Practical feasibility" refers to the technical, environmental, and financial aspects of the project. Can the project be implemented from a technical standpoint? Are there obvious environmental impacts that would preclude implementation? Is the project cost within the realm of possibility for current DOTD funding programs, or will special dedicated funding be required?

The next step in the Stage 0 process is to identify and describe a project that will address the purpose and need. This includes describing the existing facility; providing technical data such as current ADT, physical condition, etc.; describing the proposed improvements; and providing any technical analyses (i.e., safety, capacity, air quality, point-of-access, etc). The project description should include the basic design criteria and major design features. Any design exceptions for the project should be presented along with the rationale for them. For major projects or those requiring right-of-way, an aerial photograph with the proposed improvements and approximate required right-of-way limits superimposed should be included as part of the Stage 0 study. The Real Estate and Utility Sections will conduct a detailed investigation of the right-of-way and utility relocation impacts. For major projects, any reasonable alternatives to the initial project concept should be identified and described. Lastly, the management of traffic and maintenance of access to adjacent properties during construction should be described.

The third step in the process is a preliminary review of the project with regard to the natural and human environment. This begins with defining the context of the area (adjacent land uses, community features, etc.) and then performing an initial check for potential impacts to the environment. This can generally be accomplished by conducting a windshield survey and researching a few websites. If the project proceeds to Stage 1, a detailed environmental review will be conducted. Thus, the purpose of the preliminary environmental review in Stage 0 is to identify known potential impacts that could affect the cost or feasibility of the project. Also, a value planning / value engineering assessment and constructability review on selected projects considered to be "high risk" should be performed. Design proposals will be reviewed with respect to cost and impacts. Any foreseeable construction problems will be identified with recommendations for solutions.

The fourth step in the process is to develop the preliminary cost estimate for the project. The project costs should include estimates for right-of-way, utility relocations, construction (including traffic management during construction), environmental studies, mitigation, and design engineering. Guidance on preparing costs estimates for each stage in the project development process, including Stage 0, has been prepared by the Project Development Division (see Appendix II: Estimating Process).

Finally, the last step in the Stage 0 process is to identify expected funding sources. If the project is being submitted for consideration under the DOTD's regular construction program, then "Highway Priority Program" is all that should be listed. However, if other funding is available to cover a portion of the cost, the source(s) and amount(s) should be listed as this can affect the priority the project is given by the project selection teams. If the project has its own funding (i.e., Federal/State earmark, Urban Systems, CMAQ, etc.), then the source(s) and amount(s) should be listed.

4.3 Responsibility Matrix

For each category and subcategory of project, the responsibility for completing the Stage 0 study is outlined in the following matrix. In addition, the responsibility for checking the Stage 0 study for completeness and giving final approval is also indicated.

Stage 0 Responsibility Matrix

Project Category/Subcategory	Prepare Stage 0 Study	Check Completeness / Approve Stage 0 Study
System Preservation		
Non-Interstate Pavement	Districts	Systems Engineering Section
Interstate Pavement	Districts / Road Design Section	Systems Engineering Section
Bridge (on-system)	Districts / Bridge Design Section	Bridge Design Section
Bridge (off-system)	Local Governments	Road Design Section
Operations/Motorist Services		
ITS	MPOs / ITS Section	ITS Section
MAP	N/A	N/A
Traffic Control Devices Replacement/Upgrade	Districts / Traffic Engineering Management Section	Traffic Engineering Management Section
TSM	Districts	Districts
Roadway Flooding	Districts	Hydraulics Section
Weigh Stations	Weight Enforcement Section	Weight Enforcement Section
Rest Areas	Systems Engineering Section	Systems Engineering Section
Movable Bridge P. M.	Bridge Maintenance and Facilities Maintenance Section	Bridge Maintenance and Facilities Maintenance Section
Contract Maintenance	Districts	Systems Engineering Section
Traffic Safety		
Highways	Districts / Road Design Section / Highway Safety Section / Transportation Planning Section	Highway Safety Section
RR Crossing Upgrades	Systems Engineering Section	Systems Engineering Section
Additional Capacity/ New Infrastructure		
Regular Program	Districts / Road Design Section / Transportation Planning Section	Transportation Planning Section
Corridor Upgrade	Districts / Road Design Section / Transportation Planning Section	Transportation Planning Section
TIMED	N/A	N/A
Other		
Enhancements	Project Applicant	Road Design Section
Urban Systems / CMAQ	MPO	Transportation Planning Section
Federal / State Earmarks (i.e., Demo, Bond)	MPO / Transportation Planning Section	Transportation Planning Section

Note: The Project Scoping Unit in the Transportation Planning Section is available to provide advice and assistance in preparing Stage 0 studies.

4.4 Checklists

To aid in the preparation of Stage 0 studies, a general checklist has been developed in accordance with the process outlined in figure 4-2 (see page 4-9 for checklist). For minor or routine projects, the completed checklist can serve as the Stage 0 study document. For more complex projects, the checklist serves as an outline in preparing the Stage 0 study. For details of specific project types, see the Stage 0 Manual.

The Stage 0 Environmental Checklist (see page 4-10), which follows the Stage 0 Study Checklist, was prepared to aid in the preliminary review of potential impacts to the natural and human environment. It begins with a series of items to help define the context of the area followed by more detailed items to aid in the identification of potential impacts. A list of websites containing various environmental databases is included along with a general explanation of the relevance of each item in the checklist.

4.5 Deliverables

- A formal notification of the decision regarding the proposed project will be sent to the project sponsor. In cases of rejection, the notification should include the reasons for the decision.

- For a given project, the deliverable from Stage 0 is a completed feasibility study containing sufficient information so that rational decisions can be made regarding the allocation of available funds among competing projects. The following information should be included:
    - Preliminary purpose and need
    - Initial project concept
    - Potential environmental impacts
    - Preliminary scope and cost estimate
    - Expected funding sources

- For those projects that are selected for addition to the Highway Program, the completed Stage 0 study must also contain sufficient information to proceed to Stage 1. A memorandum is sent by the program manager to the Environmental Section indicating that the project was selected and approved for further processing through Stage 1.

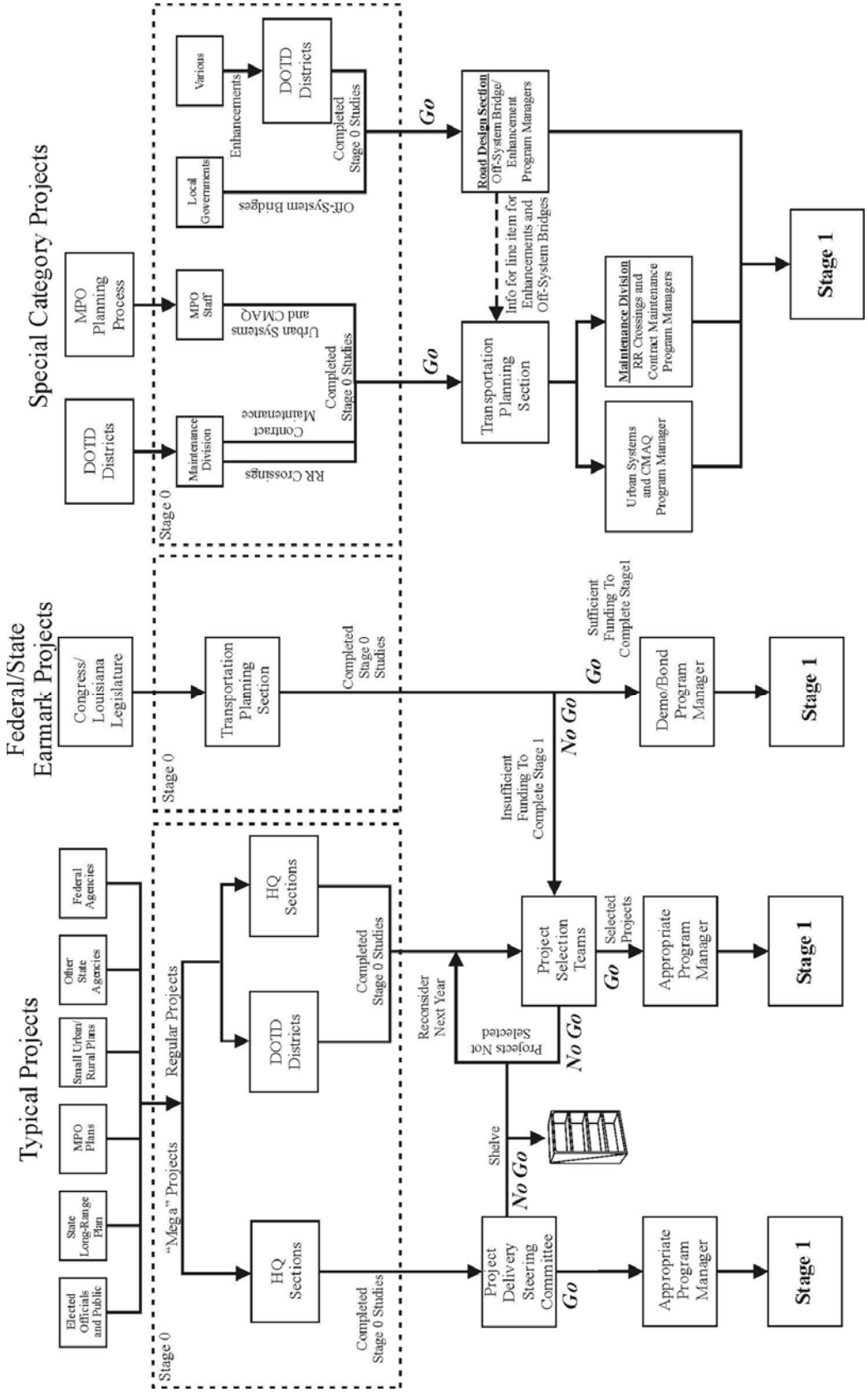

Figure 4-1

Stage 0 Process

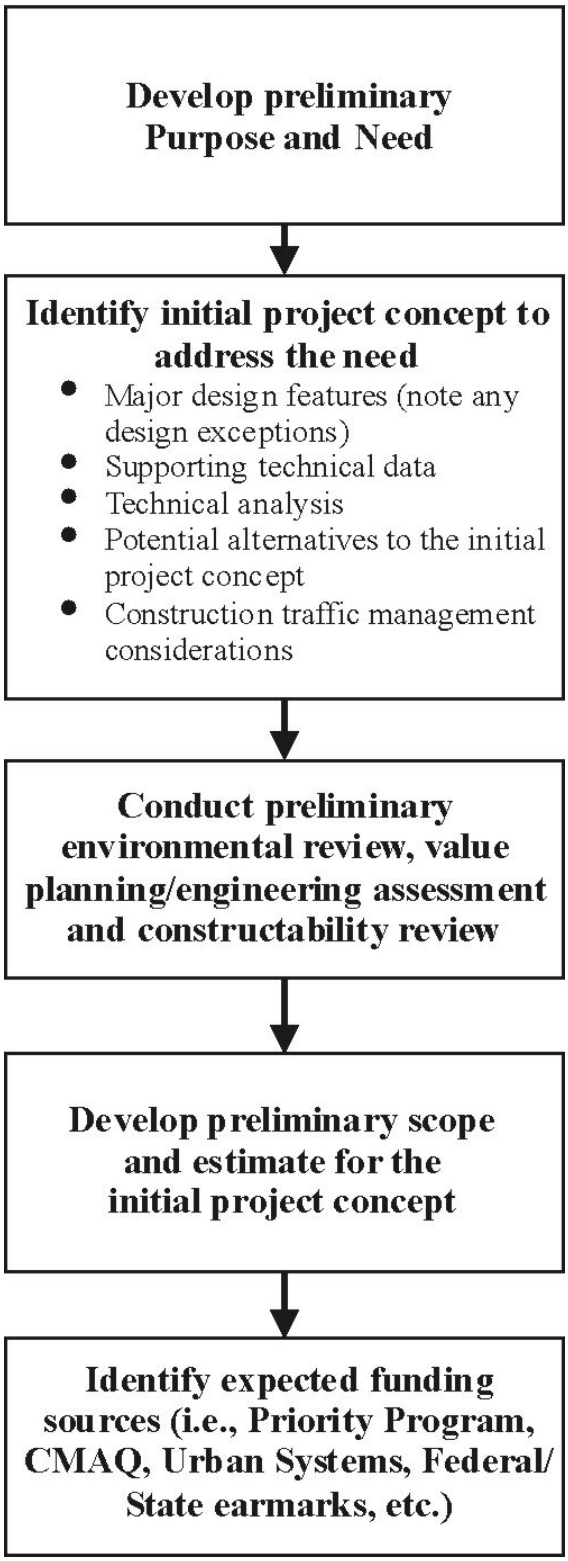

Figure 4-2

FOR DETAILS AND CURRENT CHECKLIST OF SPECIFIC PROJECT TYPES, SEE THE STAGE 0 MANUAL.

CHECKLIST FOR STAGE 0
Preliminary Scope and Budget Worksheet

District _____ Parish _____ Route _____

Control Section _____ Total Project Length (miles) _____

Begin Project (CS Log Mile) _____ End Project (CS Log Mile) _____

Project Category (Safety, Capacity, etc.) _____ Date Prepared: _____

A. Purpose and need for the project: _____

_____

B. Project Concept

- Description of existing facility (functional class, ADT, number of lanes, etc): _____

  _____
- Major Design Features/Criteria of the proposed facility (attach aerial photo w/concept if applicable):

  _____
- Design Exceptions: _____
- Technical Analyses (traffic analysis, safety analysis, etc): _____

  _____
- Alternatives to Project Concept: _____
- Future ITS / Traffic Considerations: _____
- Construction Traffic Management/Property Access Considerations: _____

C. Potential environmental impacts (Complete the Stage 0 Environmental Checklist on pages 4-10 to 4-13):

_____

_____

D. Cost Estimate

- Engineering Design: _____
- Environmental Mitigation: _____
- R/W Acquisition: _____
  (C of A if applicable)
- Utility Relocations: _____
- Construction (including const. traffic management): _____

TOTAL PROJECT COST _____

E. Expected Funding Source(s) (Highway Priority Program, CMAQ, Urban Systems, Fed/State earmarks, etc.)

_____

ATTACH ANY ADDITIONAL DOCUMENTATION Prepared By: _____

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

Stage 0 Environmental Checklist

FOR THE CURRENT ENVIRONMENTAL CHECKLIST, SEE THE STAGE 0 MANUAL.

C.S. _____ Parish _____
Route _____ Begin Log mile _____ End Log mile _____

ADJACENT LAND USE: _____

Any property owned by a Native American Tribe?
(Y or N or Unknown) If so, which Tribe? _____

Any property enrolled into the Wetland Reserve Program?
(Y or N or Unknown) If so, give the location _____

Community Elements: Is the project impacting or adjacent to any:
(Y or N) Cemeteries _____
(Y or N) Churches _____
(Y or N) Schools _____
(Y or N) Public Facilities (i.e., fire station, library, etc.)_____
(Y or N) Community water well/supply _____

Section 4(f) issue: Is the project impacting or adjacent to any:
(Y or N) Public recreation areas _____
(Y or N) Public parks _____
(Y or N) Wildlife Refuges _____
(Y or N) Historic Sites_____

Is the project impacting, or adjacent to, a property listed on the National Register of Historic Places? (Y or N) **Is the project within a historic district or a national landmark district?** (Y or N) If the answer is yes to either question, list names and locations below:

_____
_____

Do <u>you know</u> of any threatened or endangered species in the area? (Y or N)
If so, which species? _____

Does the project impact a stream protected by the Louisiana Scenic Rivers Act? (Y or N)
If yes, name the stream. _____

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW?(Y or N)
If so, where?_____

What year was the existing bridge built? _____

Are any waterways impacted by the project considered navigable? (Y or N) If unknown, state so, list the waterways: _____

Hazardous Material: Have you checked the following DEQ and EPA databases for potential problems?

(Y or N) Leaking Underground Storage Tanks _____
(Y or N) CERCLIS_____
(Y or N) ERNS_____
(Y or N) Enforcement and Compliance History_____
If found site, give the name and location: _____

Underground Storage Tanks (UST): Are there any Gasoline Stations or other facilities that may have UST on or adjacent to the project? (Y or N) _____
If so, give the name and location: _____

Stage 0 Environmental Checklist

FOR THE CURRENT ENVIRONMENTAL CHECKLIST, SEE THE STAGE 0 MANUAL.

Any chemical plants, refineries or landfills adjacent to the project? (Y or N) **Any large manufacturing facilities adjacent to the project?** (Y or N) **Dry Cleaners?** (Y or N) If yes to any, give names and locations:_____
_____

Oil/Gas wells: Have you checked DNR database for registered oil and gas wells? (Y or N)
List the type and location of wells being impacted by the project.
_____
_____

Are there any possible residential or commercial relocations/displacements? (Y or N)
How many? _____

Do you know of any sensitive community issues related to the project? (Y or N)
If so, explain _____

Is the project area population minority or low income? (Y or N) _____

What type of detour/closures could be used on the job? _____
_____

Did you notice anything of concern during your site/windshield survey of the area? If so, explain below.
_____
_____
_____

_____
Point of Contact

_____
Phone Number

_____
Date

FOR THE CURRENT ENVIRONMENTAL CHECKLIST, SEE THE STAGE 0 MANUAL.

Threatened and Endangered Species Information
http://www.wlf.state.la.us/apps/netgear/index.asp?cn=lawlf&pid=693

LA Wildlife Refuge Information
http://www.wlf.state.la.us/apps/netgear/page57.asp

Louisiana Scenic Rivers Act (R.S. 56:1840-1856)
http://www.wlf.state.la.us/apps/netgear/index.asp?cn=lawlf&pid=1175
Louisiana Natural and Scenic Rivers (R.S. 56:1847)
Louisiana Historic and Scenic Rivers (R.S. 56:1856)

Significant Tree Policy (EDSM I.1.1.21)
EDSM can be found on DOTD's intranet site: http://ladotnet/
(Live Oak, Red Oak, White Oak, Magnolia or Cypress, aesthetically important, 18" or greater in diameter at breast height and has form separates it from surrounding or considered historic.)

LA Historic Sites and Districts
http://www.crt.state.la.us/nhl2/searchby.asp

Hazardous Waste Site Information
http://www.deq.state.la.us/remediation/lust.htm
http://www.epa.gov/superfund/sites/cursites/index.htm
http://www.epa.gov/superfund/sites/npl/la.htm
http://www.nrc.uscg.mil/wdbcgi/wdbcgi.exe/WWWUSER/WEBDB.foia_query.show_parms
http://www.epa.gov/echo

DNR Oil & Gas Well Information
http://sonris-www.dnr.state.la.us/www_root/sonris_portal_1.htm (Use the GIS interactive map)

Environmental Justice (minority & low income)
http://www.fhwa.dot.gov/environment/ej2000.htm

Demographics
http://www.state.la.us/census/index.htm
http://www.census.gov/

Water wells
http://www.dotd.state.la.us/intermodal/wells/home.asp

FHWA's Environmental Website (Just a good reference for understanding NEPA)
http://www.fhwa.dot.gov/environment/index.htm

Additional Databases Checked
_____
_____
_____
_____

Other Comments:
_____
_____
_____
_____

General Explanation:

Stage 0 Environmental Checklist

FOR THE CURRENT ENVIRONMENTAL CHECKLIST, SEE THE STAGE 0 MANUAL.

To adequately consider projects in Stage 0, some consideration must be given to the human and natural environment which will be impacted by the project. The Environmental Checklist was designed knowing that some environmental issues may surface later in the process. This checklist was designed to obtain basic information, which is readily accessible by reviewing public databases and by visiting the site. It is recognized that some information may be more accessible than other information. Some items on the checklist may be more important than others depending on the type of project. It is recommended that the individual completing the checklist do their best to answer the questions accurately. Feel free to comment or write any explanatory comments at the end of the checklist.

The Databases:

To assist in gathering public information, page 4-12 gives web addresses for some of the databases that need to be consulted to complete the checklist. As of July 2005, these addresses were accurate.

Note that you will not have access to the location of any threatened or endangered (T&E) species. The web address list only the threatened or endangered species in Louisiana. It will generally describe their habitat and other information. If you know of any species in the project area, please state so, but you will not be able to confirm it yourself. If you feel this may be an issue, please contact the Environmental Section. We have biologist on staff who can confirm the presence of a species.

Why is this information important?

Land Use? Indicator of biological issues such as T&E species or wetlands.

Ownership? Tells us whether coordination with tribal nations will be required.

WRP properties? Farmland that is converted back into wetlands. The Federal government has a permanent easement which cannot be expropriated by the State. Program is operated through the Natural Resources Conservation Service (formerly the Soil Conservation Service).

Community Elements? DOTD would like to limit adverse impacts to communities. Also, public facilities may be costly to relocate.

Section 4(f) issues? USDOT agencies are required by law to avoid certain properties, unless a prudent or feasible alternative is not available.

Historic Properties? Tells us if we have a Section 106 issue on the project. (Section 106 of the National Historic Preservation Act) See http://www.achp.gov/work106.html for more details.

Scenic Streams? Scenic streams require a permit and may require restricted construction activities.

Significant Trees? Need coordination and can be important to community.

Age of Bridge? Section 106 may apply. Bridges over 50 years old are evaluated to determine if they are eligible for the National Register of Historic Places.

Navigability? If navigable, will require an assessment of present and future navigation needs and US Coast Guard permit.

Hazardous Material? Don't want to purchase property if contaminated. Also, a safety issue for construction workers if right-of-way is contaminated.

Oil and Gas Wells? Expensive if project hits a well.

Relocations? Important to community. Real Estate costs can be substantial depending on location of project. Can result in organized opposition to a project.

Sensitive Issues? Identification of sensitive issues early greatly assists project team in designing public involvement plan.

Minority/Low Income Populations? Executive Order requires Federal Agencies to identify and address disproportionately high and adverse human health and environmental effects on minority or low income populations. (often referred to as Environmental Justice)

Detours? The detour route may have as many or more impacts. Should be looked at with project. May be unacceptable to the public.